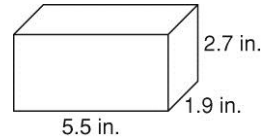


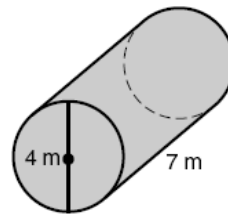
Date _____

7th Grade Semester 2 Assessment (64 Points)

- G.6 1. Find the volume of the prism to the nearest tenth. Use $V=lwh$. Show your formula, substitution(1pt) and be sure to round(1pt) and label your answer(2pt). 1. _____



- G.6 2. Find the surface area of the cylinder to the nearest tenth. Use 3.14 for π . 2. _____
Use $S.A. = 2\pi r^2 + 2\pi rh$.
Show your formula, substitution(1pt), round(1pt) and label your answer(2pt).



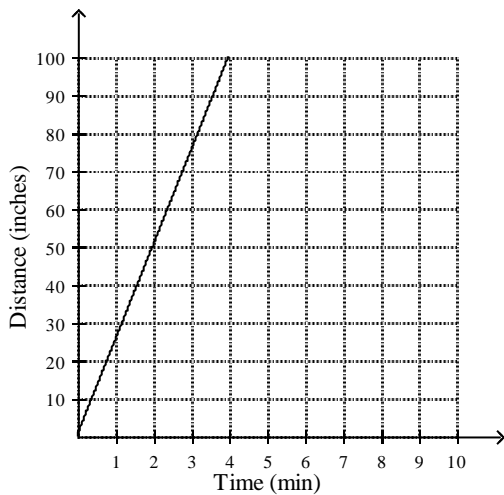
3. Tell whether the data in the table represents a direct variation. Yes or No? 3. _____

Price (¢)	15	30	45	60
Pound	3	6	9	12

- RP.2.d 4. Juan earns \$7 per hour at his job. Which ordered pair would **not** appear on a graph showing how much Juan earns in x hours? 4. _____
- a. $(3, 21)$ c. $(5, 35)$
- b. $(4, 14)$ d. $(1, 7)$

- RP.2.d 5. What does the ordered pair $(0, 0)$ represent on a graph showing how much money Ty has earned at his \$9 per hour job? 5. _____

- RP.2.d 6. The graph shows the distance in inches traveled over time in minutes. Explain what the point $(1, 25)$ on the graph represents. 6. _____



SP.2

7. Marion Middle School has 600 students. Mike surveys a random sample of 30 students and finds that 7 of them play a musical instrument. How many students at the school are likely to play a musical instrument? Show your work.

7. _____

SP.2

8. You roll a standard number cube 1,200 times. Predict the number of times you will roll a 2 or a 5.

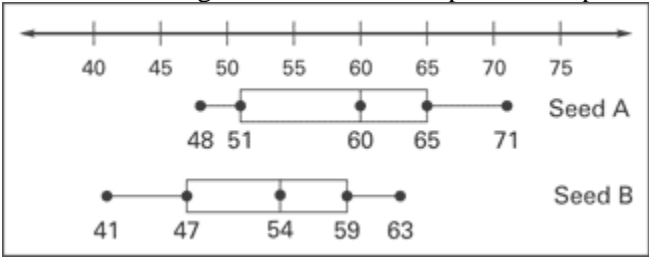
8. _____

SP.3

9. The heights, in millimeters, of 10 seedlings from 2 seed types are shown.

9. _____

Use the following Box-and-Whiskers plot to compare the samples.

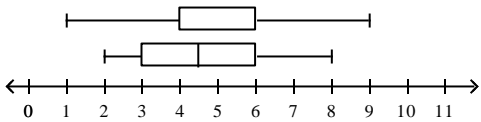


Which seed type would you predict to be taller?

SP.4

10. The box-and-whisker plots display the number of assignments per week that students in two different schools receive. Baker Middle School is the top plot and Hudson Middle School is the bottom plot.

10. _____



Which school has a greater mean amount of homework?

EE.4
EE.4.a

14. Lena wants to buy a computer that costs \$900 dollars. She already has \$473 dollars saved. Her grandmother will pay her \$7 an hour to help her with the yard work. How many hours will Lena need to work before she can afford to buy the computer? Show your work.

14. _____

EE.1
EE.4.b

15. Solve. Show your work.

$$2(x + 3) + 1 = 23$$

15. _____

EE.4

16. Ben earns a weekly salary of \$125 plus \$25 for every table he sells at the furniture store. He wants to earn at least \$325 this week.

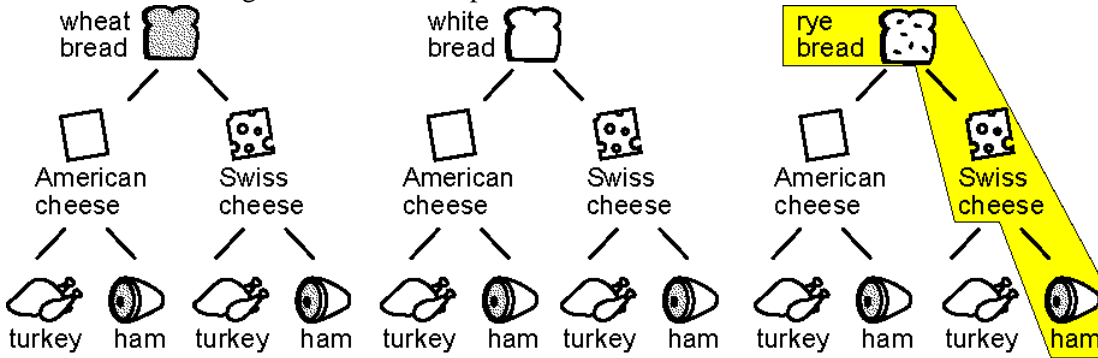
16. _____

Let t represent the number of tables Ben will have to sell.
Write and solve an equation or inequality to find the number of tables Ben will have to sell. Show your work.

Answer Key
7th Grade Semester 2

1. 28.2 in³
Total Points: 4 (-1 for missing/incorrect label, minus 2 for incorrect answer, minus one for incorrect/missing substitution)
2. 113.0 m²
Total Points: 4 (-1 for missing/incorrect label, minus 2 for incorrect answer, minus one for incorrect/missing substitution)
3. yes
Total Points: 4
4. B
Total Points: 4
5. It shows that he hasn't started working. (answers may vary – check students responses)
Total Points: 4
6. The point (1, 25) represents 25 inches traveled in 1 minute OR it has a unit rate for speed: 25 in./min
Total Points: 4 (minus two for mixing up inches and minutes)
7. $\frac{7}{30} = \frac{x}{600}$
 $30 \times x = 7 \times 600$
 $30x = 4200$
 $30x/30 = 4200/30$
 $x = 140$ students
Total Points: 4 (minus one if no work is shown, minus one if not label with students)
8. The probability of rolling a 2 or a 5 is $\frac{2}{6}$ or $\frac{1}{3}$
 $\frac{1}{3} \times 1200 = 400$ times.
Total Points: 4 (minus 3 if correct probability but incorrect final answer)
9. Seed A is, on average, taller.
Total Points: 4
10. Baker Middle School
Total Points: 4

11. The tree diagram shows the 12 possible combinations.



Total Points: 4 (2 points for correct tree diagram, 2 points for 12 total combinations)

12. 18 possible trucks

Total Points: 4

13. $V = lwh$

$$576 = 8 \cdot w \cdot 12$$

$$576 = 96w$$

$$6 = w$$

The width of the prism is 6 centimeters.

Total Points: 4 (minus one if not labeled with centimeters, minus 2 for incorrect answer, minus one if no work is shown)

14. $7x + 473 = 900$

$$7x + 473 - 473 = 900 - 473$$

$$7x = 427$$

$$7x/7 = 427/7$$

$$x = 61 \text{ hours}$$

Total Points: 4 (minus one if not labeled with hours, minus one if no correct work is shown, minus 2 if incorrect answer)

15. $2(x + 3) + 1 = 23$

$$2x + 6 + 1 = 23$$

$$2x + 7 = 23$$

$$2x = 16$$

$$x = 8$$

Total Points: 4 (two points for correct work; two points for correct answer)

16. Let t represent the number of tables Ben will have to sell.

$$125 + 25t \geq 325$$

$$25t \geq 325 - 125$$

$$25t \geq 200$$

$$t \geq 8$$

Total Points: (2 pts for correct inequality, 1 pt for 8 and 1 pt for correct inequality symbol in answer)

NAME _____

7th Grade Semester 2 Assessment Score Sheet

Standards

- | | |
|-------------|----------------|
| 1. _____/4 | G.6 |
| 2. _____/4 | G.6 |
| 3. _____/4 | RP.2.b |
| 4. _____/4 | RP.2.d |
| 5. _____/4 | RP.2.d |
| 6. _____/4 | RP.2.d |
| 7. _____/4 | SP.2 |
| 8. _____/4 | SP.2 |
| 9. _____/4 | SP.3 |
| 10. _____/4 | SP.4 |
| 11. _____/4 | SP.8.a, SP.8.b |
| 12. _____/4 | SP.8.b |
| 13. _____/4 | EE.4 |
| 14. _____/4 | EE.4, EE.4.a |
| 15. _____/4 | EE.1, EE.4.b |
| 16. _____/4 | EE.4 |

Total Score _____ / 64